

U.S.S.No. 09/661,967

7

PD-200108

REMARKS

Applicants wish to thank the Examiner for considering the present application. In the Office Action dated March 8, 2004, claims 1-24 are pending in the application. Applicants respectfully request the Examiner for reconsideration.

Applicants wish to thank the Examiner for considering the present application. Claims 1-24 are pending in the application. Claims 1-24 are being finally rejected.

Claims 1-24 stand finally rejected under 35 U.S.C. §103(a) as being unpatentable over *Ibanez-Meier* (6,151,308) in view of *Mesecher* (6,289,004). Applicants respectfully traverse.

With respect to Claim 1, the Examiner alleges that "it would have been obvious for one of ordinary skill in the art at the time the invention was made to combine the teaching of *Mesecher* to that of *Ibanez-Meier*, so that communication channels could be more reliable when using the stratospheric platform structure." However, as pointed out in the previous response, *Ibanez-Meier* clearly teaches specific ways of avoiding unacceptable signal degradation on col. 16, lines 61-67 and col. 17, lines 1-3 as follows:

"Avoiding the signal degradation could entail, for example, ceasing to communicate over the link until the threat of degradation is passed, changing the parameters (e.g., the frequency) of the communication so that the degradation will be minimized or will not be present, or switching communications to another non-interfering satellite or other device."

U.S.S.No. 09/661,967

8

PD-200108

In the face of such clear teaching in *Ibanez-Meier* of specific ways of avoiding signal degradation, one of ordinary skill in the art would not be motivated to look to *Mesecher* or some other source of teaching for some other way of avoiding the unacceptable signal degradation.

It is respectfully submitted that the Examiner has failed to set forth a prima facie case and carry his burden of establishing why one having ordinary skill in the art would have been led to the claimed invention by the reasonable teachings or suggestions found in the prior art, or by a reasonable inference to the artisan contained in such teachings or suggestions. In re Scemaker, 702 F. 2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). In view of the specific teachings in *Ibanez-Meier*, it is submitted that the motivation would have been to use one of the methods suggested by *Ibanez-Meier*. According to the Federal Circuit, the mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification. See In re Fritch, 972 F. 2d 1260, 1266 n. 14, 23 USPQ2d 1780, 1783-84 n. 14 (Fed. Cir. 1992), citing In re Gordon, 733 F. 2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Since *Ibanez-Meier* teaches specific ways of avoiding signal degradation, presumably "so that communication channels could be more reliable when using the stratospheric platform structure", the Examiner has failed to carry his burden of establishing why an ordinary artisan would be motivated to combine the teaching of *Mesecher* in this matter to that of *Ibanez-Meier*. Additionally, even if for some reason the ordinary artisan combined the teachings, as discussed below, it still would not render obvious the present claimed invention.

U.S.S.No. 09/661,967

9

PD-200108

Mesecher clearly addresses adaptive cancellation of fixed interferers. As pointed out in the earlier response in detail, *Mesecher* uses a main antenna for receiving signals from other communication stations and at least one directional antenna directed toward a known fixed interference source. *Mesecher* uses a separate antenna directed at the interference source to provide an interference signal to be subtracted from a received signal. Applicants teach "said gateway station comprising a first subtracting block for subtracting said second signal from said first signal to obtain the first beam" and "said gateway station comprising a second subtracting block for subtracting said first signal from said second signal to obtain a second beam." Thus, the constituents of each beam being subtracted are different from that of the *Mesecher* reference. In claim 1, both first and second signals are signals that are being processed by the gateway station for transmission and neither is an undesired signal from a known fixed interferer.

It is respectfully submitted that neither *Ibanez-Meier* nor *Mesecher* provide suggestions or motivation for the combination proposed by the Examiner. It appears that the Examiner is using impermissible hindsight gained from the teachings of the present application. Obviousness may not be established using hindsight or in view of the teachings of the inventor. It is improper, in determining whether a person of ordinary skill in the art would have been led to this combination of references, simply to use that which the inventor taught against the teacher. See W. L. Gore v. Garlock, Inc., 721 F. 2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983).

Independent claim 14 is similar to that of claim 1 in method form. Claim 18 is a method claim that was previously amended to improve method form and include

U.S.S.No. 09/661,967

10

PD-200108

further details from claim 1. Therefore, claims 2-19 are also believed to be allowable generally for the same reasons set forth above with respect to claim 1 and further due to the additional limitations recited therein.

Claims 20-24 recite "plurality of signals" from a plurality of users. As discussed in the specification, for example on page 10, because the signals are all received at the gateway station, the amount of interference can be determined from the relative positions of the beams from the user position files within the gateway station. Based on the positions of the beams, interference levels may be determined for cancellation purposes. Thus, since the user signals all arrive at the gateway, signal processing can be very efficiently used for interference cancellation at the gateway. These aspects are neither suggested nor shown by *Ibanez-Meier* and *Mesecher* whether they are considered singly or in combination.

On page 7 of the Office Action, the Examiner states that, "In this case, the motivation to do so found in the knowledge generally available to one of ordinary skill in the art. (It is in the knowledge generally available to one of ordinary skill in the art that the communication channels could be more reliable when using the stratospheric platform structure). In addition, applicant's attention is directed to the rejection of 1 above." Applicants respectfully submit that even when the references are combined that the present invention is not formed. The Examiner on page 3 states that it is inherent that the present invention can be formed by "reversing the operation." Applicants respectfully disagree. The signal being subtracted in the *Mesecher* reference is a specific signal from the directional antenna. Such a signal is

U.S.S.No. 09/661,967

11

PD-200108

used because it is specific to the interference/interference source. Thus, merely revising the operation cannot form the present invention.

It should also be noted that the specifics of the present invention are very suitable for a gateway station. The beams are the received beams from a stratospheric platform. The beams may be geographically separated, but still may contain interference from other beams. The signals when all returned to the gateway station may be used to obtain better signals without such things as a separate directional antenna. In the case of the present invention, a directional antenna at the stratospheric platform, for example, would increase the weight and thus increase the cost of the system. Therefore, modifying *Mesecher* to form the present invention is not obvious as the Examiner suggests.

In light of the above remarks, Applicants submit that all rejections are now overcome. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments which would place the application in better condition for allowance, he is respectfully requested to call the undersigned attorney.

Respectfully submitted,



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